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ABSTRACT

An evaluation of the Nuclear Skill Related Training Program at Memphis State University was conducted to identify possible motivational and attitudinal variables that may contribute to the retention-attrition rates of Job Corps students (40 percent) admitted to the program compared to non-Job Corps students who are migrant workers (2 percent). The program consists of 26 weeks of intensive training on a daily 8 a.m. to 5 p.m. basis. A questionnaire was developed to determine personal and motivational attitudes of the 11 currently enrolled students related to the administration and content of the Nuclear Studies Program, and short personal interviews were also conducted with these students. Data gathered in the survey indicated that the students are somewhat pleased with the program, have a strong commitment to the program, and feel that academic problems would be their major reason for dropping out if they did so. Most changes suggested by students involved the instructional area, especially in relation to the professors/instructors, modules, and the practicality of course control. Another group of suggestions was about student personnel staff. In order to strengthen retention of students in the program, the study recommended that enlistment personnel in Job Corps centers be more specific about program content, difficulty, and the probability of jobs after graduation. It also recommended that the program offer more remedial services and that instructors be more available for consultations and be more practical in class. (KC)

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# EVALUATION OF A NUCLEAR POWER SKILL RELATED TRAINING PROGRAM FOR JOB CORPS STUDENTS

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# EVALUATION OF A NUCLEAR POWER SKILL RELATED TRAINING PROGRAM FOR JOB CORPS STUDENTS

## Introduction

An evaluation of the Nuclear Skill Related Training Program at Memphis State University was undertaken to identify possible motivational and attitudinal variables that may contribute to the retention-attrition rates of Job Corps students admitted to the program compared to Non-Job Corps students (migrant workers). The dropout rate of Job Corps students was approximately 40%, whereas the attrition rate of the migrant worker group was only about 2%.

The Center for Nuclear Studies at Memphis State University offers a unique training opportunity for qualified Job Corps participants interested in entry-level positions in the nuclear power industry. This training leads to the job classifications of reactor operator, health physicist, and instrument control technician. Recruiting of participants is a cooperative effort between the Center for Nuclear Studies and the Department of Labor Job Corps Centers. Applicants must qualify as economically disadvantaged and are carefully screened through interviews, pre-screening tests, and a battery of aptitiude tests.

The program consists of 26 weeks of intensive training conducted in instructional modules on an 8:00 a.m. to 5:00 p.m. basis. One week is devoted to registration, orientation, and pre-math; two weeks are spent on technical orientation and a mathematics module; and the remaining time is devoted to an academic core, nuclear reactor fundamentals, reactor start-up and technical subjects, radiation technician fundamentals, and instrument and control technician fundamentals.

In order to meet the demands of this curriculum, the students should not only have the intellectual capacity to complete the program, but should also

possess a high level of self-discipline and achievement motivation. It was postulated that the Job Corps students in the program may, as a group, have less motivation to complete the program for the following reasons: (1) if they fail to complete the program, they have an opportunity to return to the Job Corps Center and be placed in another training program; (2) they may have unrealistic preconceptions of the difficulty of the training content; and (3) they may have unrealistic preconceptions of job prospects upon graduation.

It should be emphasized that this study reports only a cross-section of the evaluation and is descriptive only of those Job Corps students currently enrolled in the program. Of the eleven students currently enrolled, 6 were female and 5 were male. The students' ages ranged from 17 to 21 at the time of application to the program. Six students were from large cities, and 5 were from small or rural communities. This group, based on demographic characteristics, may be considered typical of previous classes of Job Corps students.

## METHODS

The evaluation consisted of three stages: (1) questionnaire and interview survey of currently enrolled Job Corps students, (2) questionnaire survey of instructors currently teaching in the program, and (3) a telephone and a short-form questionnaire survey of students no longer in the program. (The latter group is comprised of both Job Corps and migrant worker students who have successfully completed the program, as well as those who have dropped out of the program.)*

A questionnaire was developed to determine personal and motivational attitudes of the currently enrolled students related to the administration and

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*Stage 3 of the evaluation was not completed.

content of the Nuclear Studies Program. The questionnaire for Stage 1 of the evaluation consisted of parts A, B, C, and D. Part A consisted of items related to personal satisfaction and attitudes toward the conduct and administration of the Nuclear Studies Program. Students were asked to describe their feelings or impressions on a scale of 1 (strongly disagree) to 5 (strongly agree). The items in Part A were related to four areas: (1) personal competence for successful completion, (2) pre-entry skills and information, and satisfaction and perceived needs for (3) improvement in staff and instructional services and (4) support services. Part B consists of multiple choice items designed to determine motivational characteristics of the students related to commitment to program completion. Part C was a satisfaction index designed to determine the students' overall satisfaction with the Nuclear Studies Program. Part D includes a ranking of reasons why students might decide to drop out of the program as well as suggested changes for improving the quality of the program and additional comments. The survey instrument is included as Appendix A.

The survey instrument was administered to 11 students currently enrolled in the program. Short, personal interviews were also conducted with the students. In addition, instructors were surveyed on 12 items selected from Part A.

## DATA ANALYSIS

Part A of the Survey for the Evaluation of the Nuclear Studies Program contained 30 statements relating to four areas: personal competence for success (N=8), adequacy of pre-entry skills (N=5), need for support services for improving success possibilities (N=8), and attitudes toward staff and instruction (N=9). Table 1 shows the group mean for each area. Appendix B provides the mean and modes for the responses to the questions in Part A.

TABLE 1

Means for Areas on Part A of the Survey for Evaluation of the Nuclear Studies Program

| Area | No. of Statements | Mean | Rank |
|---|---|---|---|
| Staff : Instruction | 9 | 3.83 | 1 |
| Pre-entry Skills | 5 | 3.79 | 2 |
| Support Services | 8 | 3.55 | 3 |
| Personal | 8 | 3.30 | 4 |

The following results from Part B are indicators of the motivational characteristics of the students in relation to commitment to completion of the Nuclear Studies Program.

In response to a statement regarding what the student would do if he/she dropped out of the program, the most frequent response (4) was to attend college, followed by three who indicated they would enter another Job Corps program.

Financial gain appeared to be an overriding factor in response to a statement regarding hypothetical options or alternatives to the Nuclear Studies Program. Five students indicated a preference for the program over another program leading to the same opportunity and earnings, and five would be willing to change or would prefer to change programs if the same earning potential were available.

In response to a statement regarding initial feelings upon entry to the program, seven of the students indicated confidence in their ability to com-

plete the program. Five of the eleven students responded that they would be reluctant to quit the program, and two responded that they would be very reluctant to quit even if they were offered the same opportunities in another program.

Five students responded that the instructors understand their academic problems fairly well, whereas five others indicated quite well to very well. In response to a similar question regarding counselors, five students responded that the counselors understand their problems quite well, and three indicated fairly well.

Most students considered the grading system to be reasonably fair to very fair and felt fairly to very free to call on the instructors for help.

Five students appeared to perceive themselves as working about as hard as most of the other students, whereas four perceived themselves as working less hard than most others.

Most of the students (9) felt that there is a stong to moderate sense of team spirit among Job Corps students in the Nuclear Studies Program.

In addition, five students indicated plans to apply the credit hours earned in the program to a college degree, and four indicated a desire to apply the credits to a college degree.

In response to a question regarding their overall satisfaction with the program, six students responded that they are fairly satisfied, and two stated that they are very satisfied.

The students were requested to assess several components of the Nuclear Studies Program (Part C) on a scale of 1 (very dissatisfied) to 5 (very satisfied). The results are reported in Table 2.

TABLE 2

Student Satisfaction with Components of the Nuclear Studies Program

| | Mode | Mean |
|---|---|---|
| 1. How well satisfied are you with overall quality of the instruction in this program? | 4* | 3.73 |
| 2. How satisfied are you with the counseling services offered in this program? | 4 | 3.27 |
| 3. What best describes your reaction to orientation week at the beginning of the program? | 3 | 2.80 |
| 4. How well satisfied are you with the content of the academic core of this program? | 4 | 3.73 |
| 5. How do you feel about the attitudes of the academic core instructors? | 4 | 3.50 |
| 6. What best describes your reaction to the housing and food facilities? | 4 | 3.91 |
| 7. What best describes your reaction to the health services available? | 4 | 3.82 |
| 8. How satisfied are you with the job prospects when you complete this program? | 3 | 2.91 |
| 9. What best describes your feelings toward possible future salaries upon completion of this program? | 5 | 4.45 |
| 10. How do you feel about the progress you have made in this program? | 2 | 3.27 |
| Overall | 4 | 3.54 |

*N = 11

The following are the results of responses to a ranking of reasons the students would drop out of the program (Part D). The results are shown in Table 3.

TABLE 3

Ranking of Reasons for Student Drop-out

| Reason | Rank | Mean |
|---|---|---|
| Academic | 1 | 3.00* |
| Wrong Career Choice | 2 | 3.09 |
| Health or Physical Problems | 3 | 3.18 |
| Stress | 4 | 3.73 |
| Family or Personal Problems | 5 | 3.73 |
| Financial Problems | 6 | 4.27 |
| Homesickness | 7 | 5.88 |

*N = 11

In addition, the students were asked to list five suggested changes for improvement in the Nuclear Studies Program and additional comments regarding the program. These changes and comments are provided in Appendix C.

A comparison of instructor and student responses on selected items from Part A of the student questionnaire revealed a generally positive assessment of program effectiveness as shown on Table 4. The instructor questionnaire is included as Appendix D. The responses ranged from strongly agree (5) to strongly disagree (1).

The instructors were generally in agreement with the students with the exception of three items pertaining to pre-entry skills and remedial and tutoring support services. The students felt they had the necessary academic skills to complete the program when they began and agreed that more tutoring and remedial support services should be provided. On the other hand, the instructors

TABLE 4

Comparison of Instructors and Student Responses on Program Effectiveness

| Question Number | Variable | Instructor Mean (n = 6) | Student Mean (n = 11) | t | p |
|---|---|---|---|---|---|
| 1 | Center Staff | 4.00 | 4.36 | -1.21 | 0.2574 |
| 2 | Pre-entry Skills | 2.67 | 3.91 | -2.98 | 0.0131* |
| 3 | Support Services-need for remedial help | 3.50 | 4.64 | -4.20 | 0.0020* |
| 4 | Support Services - need for tutoring services | 3.33 | 4.55 | -3.09 | 0.0131* |
| 5 | Instructors - helpful | 4.33 | 3.55 | 2.01 | 0.3279 |
| 6 | Instructors - difficulty in understanding | 3.00 | 3.45 | -1.03 | 0.3279 |
| 7 | Instruction-freedom to ask questions | 4.67 | 3.82 | 1.96 | 0.0691 |
| 8 | Center Staff - helpful advice | 4.17 | 3.73 | 1.02 | 0.3278 |
| 12 | Pre-entry - expectation of program difficulty | 3.50 | 3.73 | -0.47 | 0.6453 |
| 24 | Personal - need for self-pacing coursework | 3.50 | 3.73 | -0.52 | 0.6133 |

= .05, *p<.05

indicated that the students were not as adequately prepared academically as they should have been and felt that the remedial and tutorial services were adequate.

## CONCLUSIONS

Students indicate that they are somewhat pleased with the Nuclear Studies

Program. The summative mean ( $\bar{x}$ = 3.62) indicates that their opinions lie between a neutral feeling and one of approval of the program. Inasmuch as there is little difference between the means of items clustered by area (i.e., staff/instruction, pre-entry skills, support services, personal), the data reveal a similarity of agreement regardless of areas discussed.

Students indicated that they have a strong commitment to the program, having had confidence when they entered in their ability to succeed, being reluctant to quit, being satisfied that both instructor and counselor understood and helped them with their problems, acknowledging a strong team spirit, and expressing a relatively high level of satisfaction with the program.

The statement of commitment was further substantiated by the students' indication that academic difficulty would be the major reason for dropping out of the program. The importance of the financial support for the student was indicated by their ranking financial problems (normally the major cause of dropping out of college-based programs) next to last.

Most changes suggested by students involved the instructional area, especially in relation to the professor/instructor, modules, and the practicality of course control. Another group of suggestions was about student personnel staff.

In order to strengthen the retention factor in the Nuclear Studies Program, it is recommended that enlistment personnel in Job Corps Centers throughout the nation be more specific about the program content, the difficulty of course material, and the probability of jobs after graduation. The orientation program in Memphis should put a strong emphasis on the opportunity for continually offered remedial and tutorial services for students having academic difficulty. Instructors should be more readily available for consultation about academic problems and should strive in class to be more

practical in explaining concepts and less formal in language usage.

Inasmuch as the completion of modules is limited to a set time period, more contact should be experienced between student and instructor on a less formal basis so that the understanding of course material can be increased.

Students should be informed about job opportunities during the six-month academic program to motivate them to achieve success in their courses.

A comparison of instructor and student responses on selected variables revealed that instructors have a more positive perception of the program than do students.

These results must be interpreted with caution because the information is based on the responses of a small number of students (N = 11) and may or may not be typical of Job Corps students who drop out. However, some light may be shed on areas of the program that may need strengthening for all Job Corps students based on this pilot study.

APPENDIX A

Questionnaire for Jobs Corps Students
Currently Enrolled in
The Nuclear Studies Program

Social Security Number _____

VEY FOR THE EVALUATION OF THE
NUCLEAR STUDIES PROGRAM

PART A

Circle the number of the response which best describes your feelings or impressions about the following questions. Choose only one.

Key:

| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|
| 5 | 4 | 3 | 2 | 1 |

| | | |
|---|---|---|
| 1. | The program staff were very helpful to me when I first started this program. | 5 4 3 2 1 |
| 2. | I felt I had the necessary academic skills to complete this program when I began. | 5 4 3 2 1 |
| 3. | Remedial help should be given to students having difficulty in passing the courses. | 5 4 3 2 1 |
| 4. | Tutoring services should be offered to students having difficulty in the courses. | 5 4 3 2 1 |
| 5. | The instructors in this program are helpful to students having academic problems. | 5 4 3 2 1 |
| 6. | I sometimes have difficulty understanding what the instructor is saying. | 5 4 3 2 1 |
| 7. | In class, I feel free to ask questions about material I don't understand. | 5 4 3 2 1 |
| 8. | The center staff offers helpful advice to students having difficulty. | 5 4 3 2 1 |
| 9. | At the start of the program, I was pretty sure about which area of specialized training to enter. | 5 4 3 2 1 |
| 10. | Students in this program are helpful to other students having difficulty in the courses. | 5 4 3 2 1 |
| 11. | The tests are fair and cover the material I have studied. | 5 4 3 2 1 |
| 12. | This program was more difficult than I expected it to be when I started. | 5 4 3 2 1 |

| | | |
|---|---|---|
| 13. | I feel I made a very good choice in choosing this program. | 5 4 3 2 1 |
| 14. | The orientation program adequately prepared me for what to expect during the difficult courses in the training program. | 5 4 3 2 1 |
| 15. | I had a good idea of what to expect when I started this program. | 5 4 3 2 1 |
| 16. | My academic core training would have been more meaningful if I had had the opportunity to tour a power plant before taking the courses. | 5 4 3 2 1 |
| 17. | The examples presented in instruction in academic core are sufficiently related to my future work. | 5 4 3 2 1 |
| 18. | The study skills training during orientation week was very helpful to me in developing good study habits. | 5 4 3 2 1 |
| 19. | The time-management information presented during orientation has been very useful to me in managing my study time during this program. | 5 4 3 2 1 |
| 20. | I feel I have adequate time and opportunities for recreation and social activities during this program. | 5 4 3 2 1 |
| 21. | I feel that if study halls were required, I could have improved my grades. | 5 4 3 2 1 |
| 22. | A 10:00 p.m. curfew would probably help improve my performance in my coursework. | 5 4 3 2 1 |
| 23. | Stricter dormitory regulations would help me manage my time more effectively. | 5 4 3 2 1 |
| 24. | I like to work at my own pace in my coursework rather than following a rigid time schedule. | 5 4 3 2 1 |
| 25. | I enjoy having the responsibility of managing my study and leisure time. | 5 4 3 2 1 |
| 26. | The emphasis in the academic core instruction is on practical application. | 5 4 3 2 1 |
| 27. | I had a very clear idea of the type of job/career I would be training for when I began this program. | 5 4 3 2 1 |
| 28. | I had adequate preparation in mathematics to complete this course. | 5 4 3 2 1 |
| 29. | The study hall/tutoring services in the Math Department at Memphis State provide a good resource for students in this program. | 5 4 3 2 1 |
| 30. | The orientation program helped me to feel more at home in Memphis. | 5 4 3 2 1 |

PART B

1. Place a check mark in front of the statement which best describes what you would do if you dropped out of this program.

_____ I would enter another Job Corps training program in another field.

_____ I would look for a job.

_____ I would go to college.

_____ I am undecided about what I would do.

_____ Other: _____

2. Place a check mark in front of the statement which best describes your present feelings about the Nuclear Studies Program. Choose only one.

_____ I would quit this program at once if I had a better choice.

_____ I would prefer to enroll in some other program if it offered a job opportunity earning as much money.

_____ I like this program but would be willing to change to another program if it would lead to a job making more money.

_____ I would prefer this program to another program leading to the same job opportunities and earnings.

_____ I would not change programs, even for more money, because I enjoy this program.

3. When I entered this program, my feelings about completing it could best be described as: (Check only one answer.)

_____ I was very confident that I was going to complete the program and be placed in a good job.

_____ I was pretty sure I could complete the program and be placed in a job.

_____ I had some doubts about my ability to finish, but would like to finish.

_____ If I couldn't finish the program, I could always start another program or get a job.

_____ If I could not complete this program, I would be very disappointed.

4. How would you feel about quitting this program if you were offered the same opportunities in another program?

_____ Very reluctant to quit _____ Glad to quit _____ Indifferent

_____ Reluctant to quit _____ Very glad to quit

5. How well do the instructors understand the problems you have with your studies?

_____ They understand my problems very well.

_____ They understand my problems quite well.

_____ They understand my problems fairly well.

_____ They understand my problems very little.

_____ They do not understand my problems at all.

6. How well do the counselors understand the problems you have with your studies?

_____ They understand my problems very well.

_____ They understand my problems quite well.

_____ They understand my problems fairly well.

_____ They understand my problems very little.

_____ They do not understand my problems at all.

7. Do you think the grading system in this program is fair to the students?

_____ Very fair

_____ Reasonably fair

_____ About equally fair/unfair

_____ Somewhat unfair

_____ Very unfair

8. When you have a problem with your studies, how free do you feel to call on your instructors to help you?

_____ I don't feel very free at all to call on them.

_____ I don't feel very free to call on them.

_____ I feel fairly free to call on them.

_____ I feel quite free to call on them.

_____ I feel very free to call on them.

9. Would you say you work harder, less hard, or about the same as other students?

_____ Much harder than most others.

_____ A little harder than most others.

_____ About the same as most others.

_____ A little less than most others.

_____ Much less than most others.

10. Do you feel that the students in this program have a team spirit?

_____ Yes, there is a strong team spirit.

_____ Yes, there is quite a bit of team spirit.

_____ There is some team spirit.

_____ There is very little team spirit.

_____ No, there is no team spirit at all.

11. The credit hours received in this program may be applied toward a college degree. Place a check mark in front of the statement which best describes your attitude.

_____ I am strongly interested in applying the hours earned in this program to a college degree and plan to do so.

_____ I might like to apply these hours to a college degree and hope to do so.

_____ Presently, I plan to use these hours only to obtain a job.

_____ I have no interest in applying credit hours toward a college degree.

12. Place a check mark in front of the statement which best describes your feelings about the program.

_____ I am very satisfied and happy.

_____ I am fairly satisfied.

_____ I am neither satisfied nor dissatisfied; it is just average.

_____ I am a little dissatisfied.

_____ I am very dissatisfied and unhappy.

PART C

Circle the number of the response which best describes your feelings or impressions about the following questions:

Key:

| Very Satisfied | Fairly Satisfied | Neither Satisfied Nor Dissatisfied | Fairly Dissatisfied | Very Dissatisfied |
|---|---|---|---|---|
| 5 | 4 | 3 | 2 | 1 |

| | | |
|---|---|---|
| 1. | How well satisfied are you with the overall quality of the instruction in this program? | 5 4 3 2 1 |
| 2. | How satisfied are you with the counseling services offered in this program? | 5 4 3 2 1 |
| 3. | What best describes your reaction to orientation week at the beginning of the program? | 5 4 3 2 1 |
| 4. | How well satisfied were you with the content of the academic core of this program? | 5 4 3 2 1 |
| 5. | How did you feel about the attitudes of the academic core instructors? | 5 4 3 2 1 |
| 6. | What best describes your reaction to the housing and food facilities? | 5 4 3 2 1 |
| 7. | What best describes your reaction to the health services available? | 5 4 3 2 1 |
| 8. | How satisfied are you with the job prospects when you complete this program? | 5 4 3 2 1 |
| 9. | What best describes your feelings toward possible future salaries upon completion of this program? | 5 4 3 2 1 |
| 10. | How do you feel about the progress you made in this program? | 5 4 3 2 1 |

PART D

1. The following are reasons students may decide to drop out of a program. Rank order (with #1 as the highest rank) the reasons you would drop out of this program.

_____ Family or personal problems

_____ Academic difficulty or poor grades

_____ Health or physical problems

_____ Financial problems

_____ Too much stress or pressure

_____ Wrong career choice

_____ Homesickness

_____ Other (please specify)

2. List 5 or more changes you think might improve the quality of the Nuclear Studies Program:

a.

b.

c.

d.

e.

Comments:

## APPENDIX B

Mean and Mode by Item for the Responses (N = 11) to Part A

APPENDIX B

Mean and Mode by Item for the Responses (N = 11) to Part A

Key: Strongly Agree-5, Agree-4, Neutral-3, Disagree-2, Strongly Disagree-1

| Question | Variable | Mean | Mode |
|---|---|---|---|
| 1 | Center Staff | 4.36 | 4 |
| 2 | Pre-entry skills | 3.91 | 4 |
| 3 | Support Services-need for remedial help | 4.64 | 5 |
| 4 | Support Services - need for tutoring services | 4.55 | 5 |
| 5 | Instructors - helpful | 3.55 | 4 |
| 6 | Instructors - difficulty in understanding | 3.45 | 4 |
| 7 | Instruction - freedom to ask questions | 3.82 | 5 |
| 8 | Center Staff - helpful advice | 3.73 | 3 |
| 9 | Pre-entry skills | 4.09 | 4 |
| 10 | Support Services - need for peer support | 3.73 | 5 |
| 11 | Instruction - test fairness | 4.09 | 4 |
| 12 | Pre-entry - expectation of program difficulty | 3.73 | Not Unique |
| 13 | Personal - good program choice | 4.27 | 5 |
| 14 | Support services - effectiveness of orientation program | 3.64 | Not Unique |
| 15 | Personal - pre-entry expectations | 3.00 | Not Unique |
| 16 | Instruction - meaningfulness of a power plant tour | 3.91 | 5 |
| 17 | Instruction - relevance to future work | 3.73 | 4 |
| 18 | Support Services - helpfulness of study skills training offered by ESP | 2.82 | 3 |
| 19 | Support Services - helpfulness of time-management training offered by ESP | 2.82 | 3 |
| 20 | Personal - adequate time for social and recreational activities | 3.55 | 4 |
| 21 | Personal - need for required study halls | 3.45 | 3 |

| | | | |
|---|---|---|---|
| 22 | Personal - need for 10 p.m. curfew | 2.55 | 3 |
| 23 | Personal - need for stricter dormitory regulations | 2.18 | 2 |
| 24 | Personal - need for self-pacing in coursework | 3.73 | 4 |
| 25 | Personal - responsibility for self-management of time | 3.82 | 4 |
| *26 | Instruction - emphasis on practical application | 4.00 | 4 |
| 27 | Pre-entry - clarity of job/career preparation of program | 3.22 | 3 |
| 28 | Pre-entry - adequate math preparation | 4.00 | 4 |
| 29 | Support Services - usefulness of MSU Math Department tutoring services | 3.11 | 3 |
| 30 | Support Services -usefulness of orientation program | 3.11 | 3 |

* For questions 26 - 30, N = 9.

## APPENDIX C

## Suggested Changes for the Improvement of the Quality of the Nuclear Studies Program

SUGGESTED CHANGES FOR THE IMPROVEMENT OF THE QUALITY
OF THE NUCLEAR STUDIES PROGRAM

1. Have a preparation "change" at the Job Corps Center.
2. Start a more intense academic studies program at the Job Corps Center similar to what they will get when they get here.
3. Professors should teach on the student's level.
4. More time should be spent per module.
5. Counselors should be made available more often.
6. Students badly need tutoring services.
7. The staff needs a more positive attitude.
8. Selection of students entering the program should be more thorough.
9. Because most students are far from home, more "personal" counseling is needed.
10. The modules should be written more on the student's level.
11. Instructors should be in the nuclear field and should have had on-the-job experience.
12. Books should be better prepared.
13. Tours of some type of nuclear plant should be provided.
14. Visual aids should be used.
15. The Job Corps should have better interrelations with nuclear power companies so that the students will have a more solid future upon completion.
16. There should be only one instructor per module as "too many cooks spoil the broth."
17. There should be less promise of things that will be done if they can not follow through.
18. There should be less time for lunch and more time to learn.
19. There should be better job placement so that it does not seem like a waste of time and money.
20. The instructor's use of language is above the student's level.
21. A very strong background should be required.
22. More detail should be given about what to expect from the program and what the program expects from you.

23. More time should be given for the subjects.

24. More time should be spent on what is needed to become a reactor operator rather than what is needed to obtain college credits.

25. More application of what we learn put to a demonstration (ex., actually work detectors, etc.).

26. Not switching teachers every other module.

27. Having instructors treat us more maturely.

28. Stop lying about situations such as getting companies to interview us for jobs and leave.

29. Try their hardest to help us get employed.

30. A power plant tour.

31. Some hands-on experience (more).

COMMENTS CONCERNING THE NUCLEAR STUDIES PROGRAM

1. The overall course is a fine course and the changes listed are almost the extent of the problems in the Nuclear Studies Educational Program, as presented to the students.

2. This program is an excellent opportunity for people without college degrees to excell in the job market. The selection of the students entering the program needs to be greatly improved. Major areas which the students presently lack in order to complete the program are: seriousness, maturity, and an enthusiasm to complete something which has been started.

3. I received only one day of orientation and I don't feel that they told me what to expect or what they expected of me.

4. I think the CNS Program is a very good choice for those who plan on a career in the nuclear power field. It's hard but it's worth it.

5. This program is a good opportunity, but the way it was explained to me is that companies would like to have us, which is not so. The recruiters need to be more honest and not make it sound like all our problems are solved when we graduate.

APPENDIX D

Survey For the Evaluation Of The
Nuclear Studies Program

SURVEY FOR THE EVALUATION OF THE
NUCLEAR STUDIES PROGRAM

Instructor's Form

Circle the number of the response which best describes your feelings or impressions about the following questions.

Key:

| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|
| 5 | 4 | 3 | 2 | 1 |

| | | |
|---|---|---|
| 1. | The program staff were very helpful to students when they first started this program. | 5 4 3 2 1 |
| 2. | Students appeared to have had the necessary academic skills to complete this program when they began. | 5 4 3 2 1 |
| 3. | Remedial help given to students having difficulty in passing the courses was adequate. | 5 4 3 2 1 |
| 4. | Tutoring services offered to students having difficulty in the courses were adequate. | 5 4 3 2 1 |
| 5. | The instructors in this program were helpful to students having academic problems. | 5 4 3 2 1 |
| 6. | Students seemed to have had difficulty understanding what the professor was saying. | 5 4 3 2 1 |
| 7. | In class, students seemed to have felt free to ask questions about material they did not understand. | 5 4 3 2 1 |
| 8. | The center staff offered advice to students having difficulty. | 5 4 3 2 1 |
| 9. | The program was more difficult for students than they expected it to be. | 5 4 3 2 1 |
| 10. | Students would have preferred to have worked at their own pace in their coursework rather than following a rigid time schedule. | 5 4 3 2 1 |